U.S. DEPARTMENT OF ENERGY

Update on the Office of Environmental Management

2009 Congressional Nuclear Cleanup Caucus
May 19, 2009

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Acting Assistant Secretary
Office of Environmental Management

EM Mission

"Complete the safe cleanup of the environmental legacy brought about from five decades of nuclear weapons development, production, and Government-sponsored nuclear energy research."

- Largest environmental cleanup effort in the world, originally involving two million acres at 107 sites in 35 states
- Safely performing work
  - In challenging environments
  - Involving some of the most dangerous materials known to man
  - Solving highly complex technical problems with first-of-a-kind technologies
- Operating in the world's most complex regulatory environment
- Supporting other continuing DOE missions

EM Program Priorities

- Reducing risk while maximizing compliance with regulatory commitments
  - Ensure the safety and health of the public and the workers
  - Protect the Environment
  - 37 compliance agreements with state and federal regulatory agencies
- Completing the capability to disposition tank waste and nuclear materials
  - Improve construction project performance
- Consolidating and preparing for disposal of surplus plutonium and spent nuclear fuel
- Continued shipment of remote-handled (RH) and contact-handled (CH) transuranic (TRU) waste to the Waste Isolation Pilot Plant
- High priority soil and groundwater remediation

EM Program Priorities

- Footprint Reduction
  - Reduce the active area and number of sites
  - Provide maximum return on money invested in EM – reduces overall life-cycle cost of cleanup program
  - Focus on proven successes – solid waste disposal, deactivation and decommissioning (D&D) of contaminated facilities, and soil and groundwater remediation
  - Create thousands of jobs through economic recovery investment

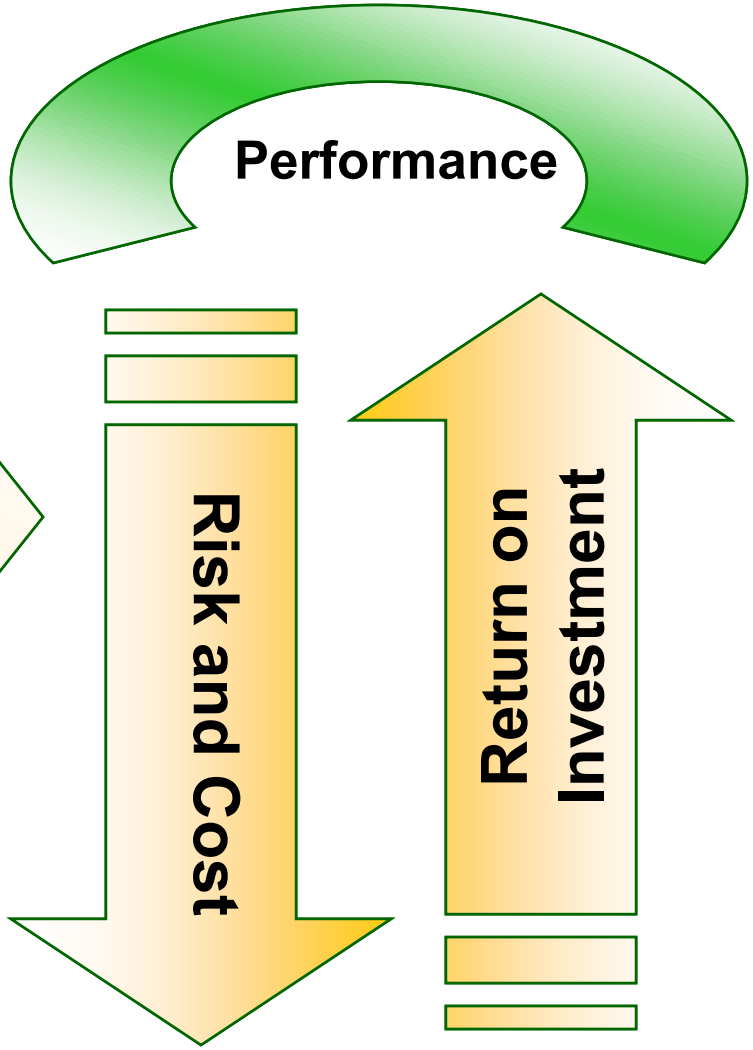
Goal Attainment

Sound business practices
- Near term completions
- Footprint reduction

Use science and technology to optimize the efficiency of tank waste disposition

Use science and technology to optimize the efficiency of excess nuclear materials, and spent nuclear fuel disposition

Alternative management approaches



Budget Priorities

- Essential activities to maintain a safe and secure posture in the EM complex
- Radioactive tank waste stabilization, treatment, and disposal
- Spent nuclear fuel storage, receipt, and disposition
- Special nuclear material consolidation, stabilization and disposition
- High priority groundwater remediation
- Transuranic and mixed/low-level waste disposition
- Soil and groundwater remediation
- Excess facilities deactivation and decommissioning (D&D)

FY 2010 Budget Highlights ($5.8B)

- Funds essential activities to maintain a safe and secure posture in the EM complex
- Funds tank waste management and treatment activities across the complex
  - Continue construction of three large tank waste treatment facilities
  - Additional investments at Office of River Protection (ORP) for tank waste disposition – focus on 2019 vision
- Increased funding at Portsmouth
  - Award D&D contract in FY 2010
  - Goal to complete D&D in 15 years or less
- Increase in Technology Development and Deployment
  - $73 million increase

FY 2009 Omnibus, Recovery Act, and FY 2010 Request

Site *(dollars in thousands)*	FY 2009 Original Appropriation[a/]	FY 2009 ARRA[a/]	FY 2010 Congressional Request[a/]
Argonne National Laboratory	29,479	98,500	0
Brookhaven	8,433	42,355	12,614
Energy Technology Engineering Center	15,000	54,175	13,000
Fernald	2,100	0	0
Hanford	1,057,496	1,634,500	993,503
Idaho	489,239	467,875	411,168
Los Alamos National Laboratory	224,639	211,775	189,000
Miamisburg	30,574	19,700	33,243
Moab	40,699	108,350	30,671
Nevada	75,674	44,325	65,674
Oak Ridge	498,688	755,110	411,168
Office of River Protection	1,009,943	326,035	1,098,000
Paducah	169,947	78,800	144,857
Portsmouth	240,715	118,200	319,663
Savannah River	1,361,479	1,615,400	1,342,013
SPRU	18,000	31,775	15,000
Stanford Linear Accelerator Center	4,883	7,925	4,600
Waste Isolation Pilot Plant	236,785	172,375	224,981
West Valley Demonstration Project	66,900	73,875	59,933
Other Sites	9,629	0	7,212
Completed Sites Administration and Support	14,309	0	9,425
Program Direction	309,807	30,000	355,000
Program Support	33,930	0	34,000
Uranium Thorium Reimbursement	10,000	68,950	0
Congressionally Directed Activities	22,666	0	0
Technology Development & Deployment	32,320	0	55,000
Management Reserve	0	40,000	0
Subtotal	**6,013,334**	**6,000,000**	**5,829,725**
Adjustments (Prior year balances, transfers from SC and NA, domestic utility fees)	-21,762	0	-200,000
Total	**5,991,572**	**6,000,000**	**5,629,725**

FY 2010 Request – Summary by State

State *(dollars in thousands)*	EM FY 2010 Congressional Request [a/]	DOE FY 2010 Congressional Request [b/]
California	19,010	2,310,803
Colorado	6,375	985,108
Idaho	422,578	1,247,050
Illinois	0	1,024,554
Kentucky	154,921	166,728
Nevada	69,931	496,823
New Mexico	436,302	4,000,777
New York	87,547	1,179,925
Ohio	402,029	481,735
South Carolina	1,401,659	2,386,119
Tennessee	430,596	2,476,864
Utah	30,671	75,643
Washington	2,169,803	2,722,237
Washington, DC	198,303	4,449,173
Total	**5,829,725**	**26,390,382**

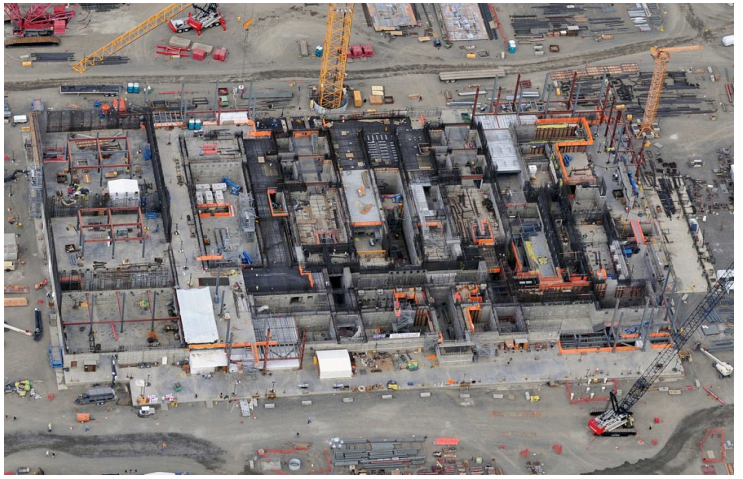
[a/] State Distribution includes funding for Program Direction and Safeguards and Security activities.

[b/] Excludes States with no EM presence, but total reflects all states funding.

Key Program Issues

- Need for improved construction project management
  - Strengthen federal and contractor capability toward a “best-in-class” project management organization
  - Minimize risk associated with starting construction prior to completion of design
    - Integrate safety requirements early in design phase
    - Incorporate readiness assessments to ensure technology maturity
    - 70-90% design complete prior to construction
  - Construction Project Reviews modeled after Office of Science reviews

High-Level Waste Vitrification Facility



Key Program Issues (cont.)

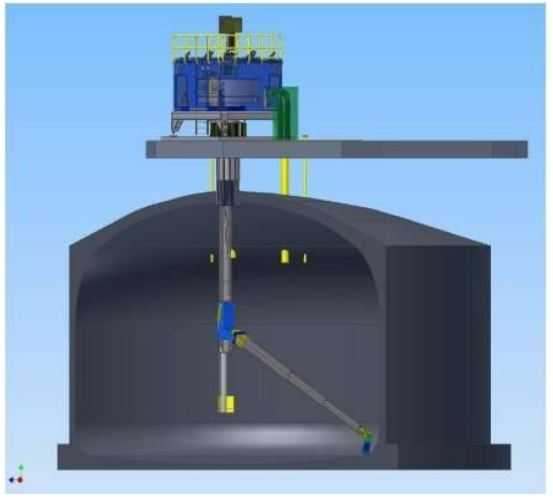
- Human Capital
  - Program Direction increase of $45 million
  - Significant increase of workforce over 3 years – over 300 employees
  - Hires consistent with National Academy of Public Administration (NAPA) recommendations
    - Contract/Project Management Oversight

- EM Pension Liabilities
  - 11 defined benefit contractor pension plans covering about 36,000 current, former and retired contactor employees
    - 47% active
  - Pension plan assets have experienced significant declines
  - Require increase contribution

Strengthen Technology Development

- Focus on reducing risks and life-cycle costs associated with tank waste stabilization, treatment, and disposal and groundwater remediation
  - Develop new technologies to reduce project costs, reduce the time of project completion, and provide enhanced health, safety, and technical performance capabilities
  - Ensure the technology readiness of EM cleanup technologies
  - Utilize state-of-the-art modeling and simulation tools
  - Assure current technologies being applied in projects are meeting or exceeding safety, cost, schedule, and technical objectives
- Leverage world class basic research and facilities funded by other offices within the Department
- Increase in FY 2010 budget to $105 million from $32 million in FY 2009
  - Use science and technology to optimize the efficiency of tank waste and groundwater remediation

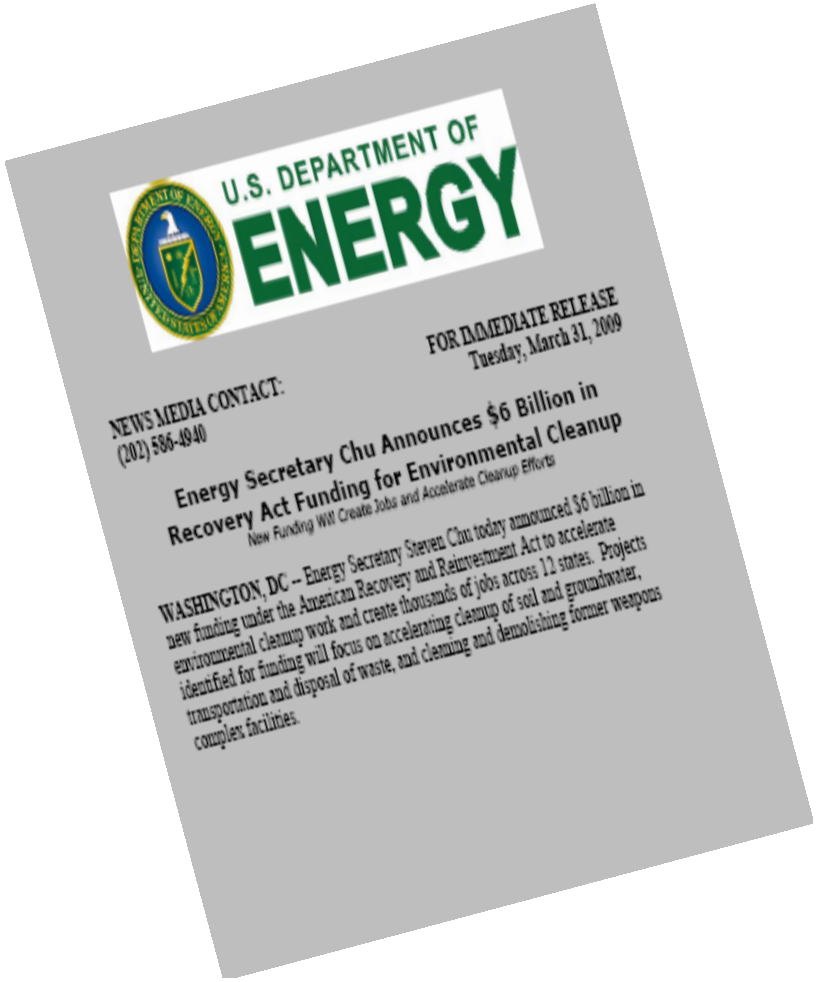
Electrical resistance heating, will be used to remove TCE up to 100 feet below the surface at Paducah.



Mobile Arm Retrieval System

Recovery Act Investments
Sound Business Practices

- $6 billion in American Recovery and Reinvestment Act (Recovery Act) funding
  - Maximum return on money invested
- Scope that can most readily be accelerated
  - Soil and groundwater remediation
  - Radioactive solid waste disposition
  - Excess facility D&D
- "Shovel Ready"
  - Defined cost, scope, and schedule
  - Established regulatory framework
  - Proven technology
  - Proven performance
  - Existing contract vehicles
- Focus on site closure and EM completions
  - Reduce the EM footprint
- Opportunities identified at 17 sites in 12 states



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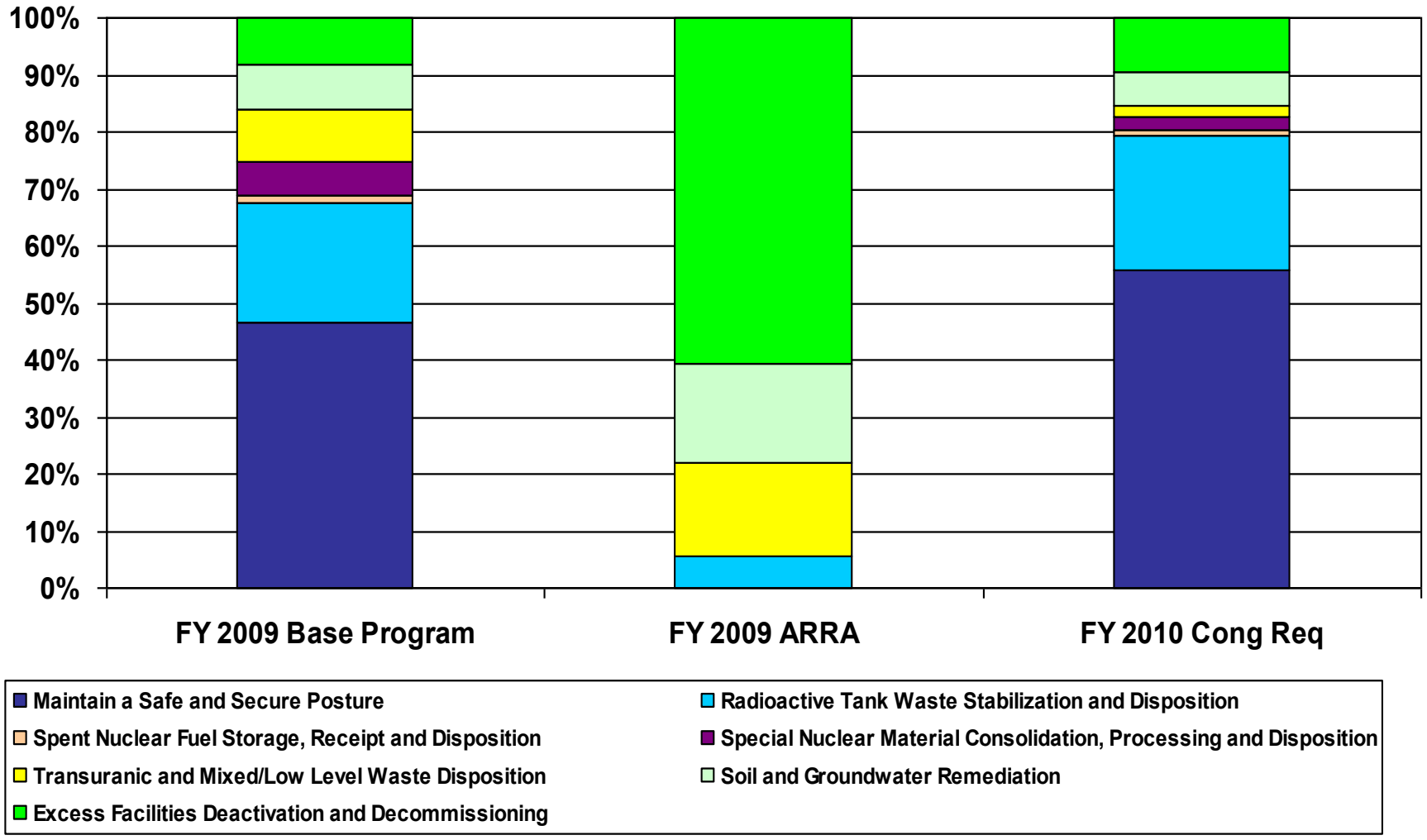
FOR IMMEDIATE RELEASE
Tuesday, March 31, 2009

Energy Secretary Chu Announces $6 Billion in Recovery Act Funding for Environmental Cleanup

New Funding Will Create Jobs and Accelerate Cleanup Efforts

WASHINGTON, DC – Energy Secretary Steven Chu today announced $6 billion in new funding under the American Recovery and Reinvestment Act to accelerate environmental cleanup work and create thousands of jobs across 12 states. Projects identified for funding will focus on accelerating cleanup of soil and groundwater, transportation and disposal of waste, and cleaning and demolishing former weapons complex facilities.

Comparison of Recovery Act and Base Program Work Scope



FY 2010 Budget Request Summary

- With the FY 2010 budget request, EM will focus on reducing risk while maximizing compliance with regulatory commitments
- Improve construction project performance
- Strengthen Technology Development
  - Focus on high-risk activities
  - Potential to significantly reduce life-cycle cost of cleanup
- Continue to evaluate programmatic alternatives
  - Support future funding allocation decisions
  - Identify opportunities
  - Optimize planning

The Challenge: Continuing Progress on Overall EM Program

- Safely conducting work
- Managing performance-based projects with life cycles over several decades
- Producing results with robust project management practices
- Applying first-of-a-kind technologies
- Achieving footprint reduction and near-term completions
- Managing and maintaining an "able and stable" workforce
- Using Recovery Act funds to create environmental cleanup jobs